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**Title:** The effect of passive smoking on body height, body weight, peak expiratory flow rate and motor skills in children

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**Body:** Passive smoking is strongly linked to a range of adverse child health outcome. The objectives of the present study were to assess: 1) proportion of school children passively exposed to cigarette smoke; 2) the impact of passive smoking on body height and body weight; 3) the influence of passive smoking on peak expiratory flow rate (PEFR); and 4) on the motor skills in school children. This prospective study included 133 children, 66 males and 67 females, aged from 11 to 14 years. Subjects were divided in two groups depending on parental smoking habits: Group I – children of smoking parents who smoke 10 or more cigarettes per day (88/133=66%) and Group II – children of non-smoking parents (45/133=34%). For the assessment of motor skills 6-minute run test (F-6 test) was used. 88/133 (66%) children have been exposed to passive smoking, while 45/133 (34%) children came from families of non-smoking parents. There was no statistically significant difference in either height or in weight. The PEFR (L/min) values for Group I were statistically lower [320 (300-370)] than in control group of children [380(347-405)] ( $P = < 0.0001$ ). The median F-6 test values for Group I were statistically lower [2 (1-3)] than in control group of children [4 (3 - 5)], respectively ( $P < 0.0001$ ). Children of smoking parents have statistically significant lower grade of motor skills and statistically significant lower PEFR value than children of non-smoking parents. Public health preventive actions should go toward minimizing the exposure of children to passive smoking by counseling the smoking parents that quitting smoking provides enormous health benefits not only to them but also to their children.